

Records of Site Condition

A Guide on Site Assessment, the Cleanup
of Brownfield Sites and the Filing of
Records of Site Condition

October 2004



Records of Site Condition

A Guide on Site Assessment, the Cleanup of
Brownfield Sites and the
Filing of Records of Site Condition

October 2004

Copyright: Queen's Printer for Ontario, 2004
This publication may be reproduced for non-commercial
purposes with appropriate attribution.



PIBs 4728e

PREFACE

This Guide describes the legislative and regulatory requirements for assessing the environmental condition of a site, the cleanup of brownfield sites and the filing of records of site condition in Ontario's Environmental Site Registry. This Guide provides an overview of the requirements under Parts XV.1 and XV.2 of the *Environmental Protection Act* (EPA) and the regulations under those Parts. The associated provisions in the *Ontario Water Resources Act*, the *Pesticides Act*, the *Municipal Act, 2001*, the *Planning Act* and the *Education Act* are also briefly described.

This Guide is intended to provide property owners, consultants (i.e. "qualified persons"), municipalities, building officials, the public and other interested parties with an overview of the new requirements under the EPA and other Acts. The Guide focuses on the requirements for site assessment and cleanup, and the filing of a record of site condition under Part XV.1 of the EPA and Ontario Regulation 153/04. The Guide also describes the provisions concerning protection from liability from orders under Part XV.1 of the EPA which apply to property owners who have filed a record of site condition and under Part XV.2 of the EPA which apply to municipalities, secured creditors and others who may need to undertake certain investigative or other actions related to brownfield sites.

It should be noted that the description of the legislative and regulatory requirements given in this Guide is for convenience only. A copy of the relevant legislation and regulations should be obtained to determine the exact requirements.

This Guide may be amended from time to time.

TABLE OF CONTENTS

PREFACE	i
1.0 INTRODUCTION	1
2.0 OVERVIEW OF THE LEGISLATION	2
2.1 Environmental Protection Act	2
2.2 Ontario Water Resources Act	3
2.3 Pesticides Act	3
2.4 Municipal Act, 2001	3
2.5 Planning Act	5
2.6 Education Act	5
3.0 OVERVIEW OF THE RSC PROCESS	5
4.0 ENVIRONMENTAL SITE ASSESSMENT	7
4.1 Phase I ESA	7
4.2 Phase II ESA	7
4.2.1 Technical Guidance Manual	8
4.3 Analytical Protocols and Lab Accreditation	8
5.0 QUALIFIED PERSONS	9
5.1 Types of Qualified Persons	10
5.2 Qualified Persons for Site Assessments and Records of Site Condition	11
5.3 Qualified Persons for Preparing Risk Assessments	12
5.4 Professional Liability Insurance Requirements	12
6.0 SITE CONDITION STANDARDS	13
6.1 Soil and Ground Water Standards - Background Standard	13
6.2 Soil and Ground Water Standards – Effects-Based Standards	13
6.2.1 Soil Standards	14
6.2.2 Ground Water Standards	14
6.3 Sediment Standards	14
6.4 Selecting the Appropriate Standards for the Intended Property Use	14
6.5 Stratified Sites	15
6.6 Soil Characteristics – Texture	15
6.7 Environmentally Sensitive Areas	16
6.7.1 Soil pH	16
6.7.2 Shallow Soil Property	17
6.7.3 Near a Water Body	17
6.7.4 Areas of Natural Significance	17
6.8 Non-Potable Ground Water Conditions	17

7.0	RISK ASSESSMENT	18
7.1	Qualified Person – Risk Assessment	19
7.2	Pre-Submission Form	19
7.3	Property-Specific Standards	19
7.4	New Science Risk Assessment	20
7.5	Estimating Local Background Concentrations	20
7.6	Limited Scope Risk Assessments	21
7.7	Off-Site Contamination Issues (Wider Area of Abatement).....	21
7.8	Risk Management Measures	22
7.9	Risk Assessment Preparation and Review Process	22
7.9.1	Site Assessment	22
7.9.2	Pre-Submission Form	23
7.9.3	Preparation of a Risk Assessment	23
7.9.4	Acceptance of a Risk Assessment	23
7.9.5	Certificate of Property Use	24
8.0	SITE REMEDIATION	25
8.1	Assessment of Options	25
8.2	Design and Implementation	26
8.3	Confirmatory Sampling	26
8.4	Reporting of Remedial Action and Mitigation	27
9.0	RECORDS OF SITE CONDITION	27
9.1	Contents of a Record of Site Condition	27
9.2	Contents of a Transition Notice	29
10.0	ENVIRONMENTAL SITE REGISTRY	31
10.1	Filing a Record of Site Condition in the Registry	31
10.1.1	Obtaining a User Name and Password	32
10.1.2	Completing and Submitting a RSC.....	32
10.1.3	Sending Supporting Documentation	33
10.1.4	Acknowledgement that a RSC has been Filed.....	33
10.2	Viewing Documents in the Registry	33
11.0	MANDATORY FILING	35
11.1	The Building Code and Property Use Categories	35
11.1.1	Link to the Building Code.....	35
11.1.2	Property Use Categories	35
11.2	Mandatory Filing Requirements	37
11.3	What Building Officials Need to Know.....	38
11.3.1	When Proof of a RSC is Required	38
11.3.2	Acknowledgement that a RSC has been Filed.....	40
11.3.3	Restrictions on the Property - Certificate of Property Use	40

12.0	PLANNING AND ENVIRONMENTAL REQUIREMENTS	40
12.1	Land Use Planning in Ontario	41
12.2	Integrating Planning and Environmental Requirements	41
12.3	A Planning Process Model for Contaminated Properties	42
13.0	LIMITATIONS ON ENVIRONMENTAL LIABILITY.....	44
13.1	Effect on Owner Liability from Filing a RSC	44
13.1.1	General Protection from Possible Orders	44
13.1.2	Limitations on the Protection from Orders	45
13.1.3	Emergencies Relating to Old Contaminants	45
13.2	Special Provisions	46
13.2.1	Municipalities	46
13.2.2	Secured Creditors.....	47
13.2.3	Receivers and Trustees in Bankruptcy.....	48
13.2.4	Fiduciaries.....	49
13.2.5	Property Investigators	49

APPENDICES

A.1	FURTHER INFORMATION	50
A.2	DEFINITIONS	51

1.0 INTRODUCTION

The revitalization of abandoned industrial land or other underutilized and often contaminated lands, generally known as brownfield sites, is important to help ensure a clean, healthy environment and to help promote strong communities and a strong economy. Redeveloping brownfield sites encourages better patterns of urban growth because contaminated lands are cleaned up, more efficient use is made of existing infrastructure -- like roads, sewers and schools -- and an alternative is provided to developing farmland and other greenfield sites. At the same time, any potential threat to human health or the environment related to site contamination is addressed.

New legislative and regulatory requirements have been put in place to help encourage the cleanup and redevelopment of brownfield sites while ensuring the environment is protected. These new requirements establish clear rules for site assessment and cleanup, ensure only qualified people undertake this work, and provide for the filing of a record of site condition in a public registry. Provisions have been included to reduce the potential liability from orders for property owners who have filed a record of site condition after assessing and cleaning up, if necessary, their property. Provisions have also been included to reduce the potential liability from orders for municipalities, secured creditors and others who may need to undertake certain investigative or other actions related to brownfield sites. Provisions in the *Municipal Act, 2001*, the *Planning Act* and the *Education Act* are designed to facilitate the planning and financing of brownfields redevelopment projects.

The focus of this Guide is on the requirements set out under Parts XV.1 and XV.2 of the *Environmental Protection Act* (EPA) and Ontario Regulation 153/04. The associated provisions in the *Ontario Water Resources Act*, the *Pesticides Act*, the *Municipal Act, 2001*, the *Planning Act* and the *Education Act* are also briefly described.

This Guide has been prepared to provide property owners, consultants (i.e. qualified persons), municipalities, building officials, the public and other interested parties with an overview of the new requirements. The Guide describes the legislative and regulatory requirements in the following areas:

- assessing the environmental condition of a property (Section 4.0);
- the qualifications required for persons undertaking site assessments, risk assessments and filing records of site condition (Section 5.0);
- the standards to be met for soil, ground water and sediment (Section 6.0);
- the use of risk assessment if needed to develop property-specific standards (Section 7.0);
- completing a record of site condition (Section 9.0);
- filing and viewing records of site condition on the Environmental Site Registry (Section 10.0);
- when it is mandatory to file a record of site condition (Section 11.0); and
- liability protection from orders provided for property owners who file a record of site condition and for municipalities, secured creditors and others to facilitate

investigative and other actions related to brownfield sites (Section 13.0).

The Guide also provides an overview of site remediation (Section 8.0) and the integration of land use planning and environmental requirements (Section 12.0).

2.0 OVERVIEW OF THE LEGISLATION

Through the *Brownfields Statute Law Amendment Act, 2001*, legislative and regulatory amendments have been made to a number of Acts to encourage the revitalization of underutilized and often contaminated land, and to ensure the environment is protected. This section of this Guide provides a brief summary of the brownfield amendments. It should be noted that the summary in this section, and this Guide itself, does not address other parts or sections of the EPA, or other Acts, that may also apply to a certain property.

2.1 Environmental Protection Act

Two new Parts have been added to the EPA. Part XV.1 sets out the requirements for the assessment and cleanup of a property and the filing of a “record of site condition” in the Environmental Site Registry. Part XV.1 also includes provisions reducing the potential liability from orders for property owners after a record of site condition has been filed. Part XV.2 contains provisions reducing the potential liability from orders for municipalities, secured creditors and others who may need to undertake certain investigative or other actions related to brownfield sites.

Under Part XV.1 of the EPA, a property owner may file a record of site condition on the Environmental Site Registry if the applicable standards are met for soil, ground water and sediment. An initial assessment (referred to as a “phase one environmental site assessment”) is required to determine the likelihood that contaminants have affected the property. A more detailed assessment (referred to as a “phase two environmental assessment”) may be required to determine the concentration of contaminants on the property. For some types of proposed changes of property use, such as from industrial to residential, the filing of a record of site condition is mandatory. It should be noted that most of Part XV.1 of the EPA and Ontario Regulation 153/04 come into force on October 1, 2004. A date, however, has not yet been set for when the mandatory filing provisions come into force.

Certified statements set out in a record of site condition about the environmental condition of a property can only be made by a “qualified person”. If a phase two environmental site assessment has been conducted for the property, the qualified person must certify that the property meets the site condition standards prescribed by regulation or that the property meets the property-specific standards specified in a risk assessment that has been accepted by the Director. If the Director accepts a risk assessment, the Director may also issue a “certificate of property use” that requires the owner to take certain risk management actions or refrain from doing certain things at the property.

If a record of site condition is filed in the Environmental Site Registry, Part XV.1 provides that certain types of orders cannot be made against the owner of the property and certain other persons, subject to specified exceptions.

Part XV.2 of the EPA contains provisions specific to municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries (e.g. an executor of an estate) and property investigators who may need to undertake certain investigative or other actions related to brownfield sites. These provisions protect these parties from being considered a “person responsible” for contamination at a property they do not own simply because they took certain action in respect to the property. These provisions also provide limited five year protection to municipalities that take ownership of a property through a failed tax sale and to secured creditors that take ownership by foreclosure.

Ontario Regulation 153/04 made under the EPA provides additional details on matters related to filing a record of site condition such as site assessment requirements and the applicable standards. Ontario Regulation 298/02 made under the EPA provides additional details on the provisions specific to municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators.

2.2 Ontario Water Resources Act

The amendments made to the *Ontario Water Resources Act* (OWRA) are similar to some of the amendments made to the EPA. The OWRA amendments focus on the protections from orders provided to property owners when a record of site condition has been filed in the Environmental Site Registry, and the provisions specific to municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators who may need to undertake certain investigative or other actions related to brownfield sites.

Ontario Regulation 299/02 made under the OWRA provides additional details on the provisions specific to municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators.

2.3 Pesticides Act

The amendments made to the *Pesticides Act* are similar to those made to the OWRA with respect to the provisions specific to municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators who may need to undertake certain investigative or other actions related to brownfield sites.

2.4 Municipal Act, 2001

Provisions have been included in the *Municipal Act, 2001* that allow municipalities to provide tax assistance to encourage site cleanups and to remove barriers to the use of the tax sale process in relation to brownfield sites.

Tax Assistance

The *Municipal Act, 2001* (Section 365.1) allows municipalities to provide for municipal tax assistance to encourage the cleanup of contaminated properties. This tax assistance is intended to offset the “costs of rehabilitation” (i.e. cleanup) on eligible properties undertaken to reduce the concentration of contaminants to enable a record of site condition to be filed in the Environmental Site Registry. The municipal portion of property taxes may be matched by the province where application has been made by the municipality and where approval has been given by the Ministry of Finance.

Eligibility for tax assistance includes the following two criteria:

- where a property falls within a community improvement project area for which a community improvement plan is in effect containing provisions in respect of tax assistance under Section 365.1 of the *Municipal Act, 2001*; and
- as of the date the phase two environment site assessment was completed, the property does not meet the applicable standards required to allow for the filing of a record of site condition in the Environmental Site Registry.

The development and availability of a community improvement tax assistance program is determined by each municipality, based on their local circumstances and priorities. Municipalities wishing to undertake a community improvement tax assistance program should consult both the *Municipal Act, 2001* and the *Planning Act* for specific rules relating to tax assistance.

Tax Arrears

The *Municipal Tax Sales Act* is now incorporated as Part XI of the *Municipal Act, 2001*. These provisions allow municipalities to hold a public sale of property that is in property tax arrears, including all reasonable costs, in order to acquire a cancellation price for the outstanding taxes.

The amendments to the *Municipal Act, 2001* provide that municipalities may hold a public tax sale of a property that is in tax arrears, and if that process fails to yield a purchaser, the municipality has one year from the date of the failed tax sale to decide whether it will acquire ownership of that property. During that year, a municipality may enter the property to carry out an environmental site assessment of the land without being considered a ‘person responsible’.

Municipalities should consult the *Municipal Act, 2001* for specific rules relating to the tax arrears provisions.

2.5 Planning Act

Amendments have been made to Section 28 of the *Planning Act* to allow for the provision of municipal tax assistance under Section 365.1 of the *Municipal Act, 2001*, within a community-improvement plan framework.

If a municipality chooses, it may develop a community improvement plan that contains tax assistance policies and criteria that are intended to stimulate the cleanup of contaminated properties by offsetting the costs of remediation through the freezing or cancellation of the municipal portion of property taxes and, with the approval of the Ministry of Finance, the provincial portion of property taxes may be included. The offsetting of cleanup costs is limited to the “costs of rehabilitation” for an eligible property.

In addition, amendments have been made to facilitate the approval of community improvement plans. Where a community improvement plan contains financial assistance programs, such as tax assistance or grants of loans, the Minister of Municipal Affairs and Housing is the approval authority. Where programs do not include financial assistance (e.g. municipal infrastructure programs), municipal council may adopt the community improvement plan and, after the expiry of the appeal period to the Ontario Municipal Board and provided that no appeals have been made, the plan is in effect.

Municipalities wishing to undertake a community improvement tax assistance program should consult both the *Planning Act* and the *Municipal Act, 2001* for specific rules relating to tax assistance.

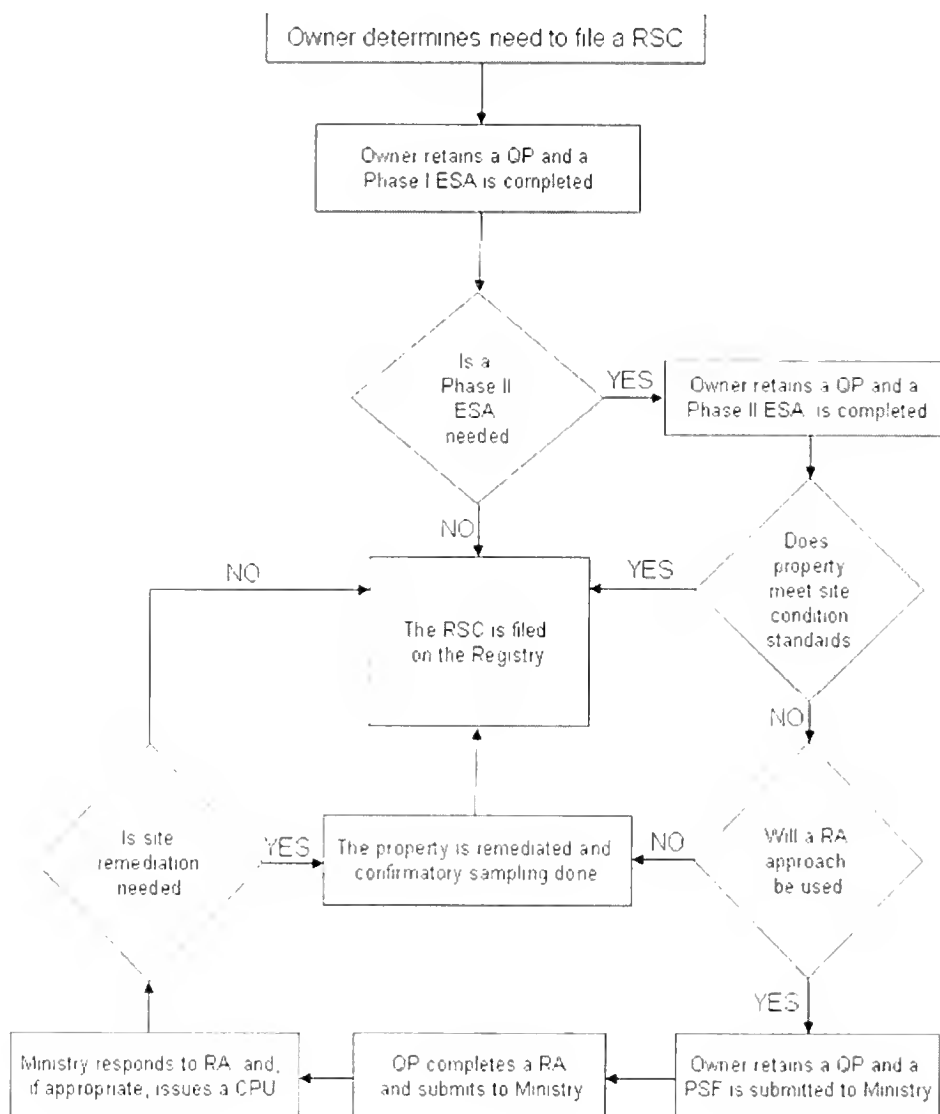
2.6 Education Act

The amendments made to the *Education Act* are complementary to the municipal tax relief provisions included in the *Municipal Act, 2001*.

3.0 OVERVIEW OF THE RSC PROCESS

This Guide summarizes the legislative and regulatory requirements for site assessment and cleanup, and the filing of a record of site condition (RSC) in Ontario’s Environmental Site Registry. The focus of the Guide is on the environmental requirements set out under Ontario Regulation 153/04 and Part XV.1 of the EPA. A description of the many different aspects of the new requirements is given in the various sections of this Guide. Figure 1 illustrates how the different aspects of the RSC process are linked.

Figure 1: Overview of the RSC Process



Notes for Figure 1:

1. "CPU" means a certificate of property use
2. "ESA" means an environmental site assessment
3. "Ministry" means Ministry of the Environment
4. "PSF" means a pre-submission form
5. "QP" means a qualified person
6. "RA" means risk assessment
7. "RSC" means a record of site condition

4.0 ENVIRONMENTAL SITE ASSESSMENT

In general terms, an environmental site assessment in the context of brownfield sites means the assessment of the environmental condition of the land including the soil, ground water and sediment, if any. An environmental site assessment may be carried out for purposes such as a sale of property between parties, to obtain financing or a mortgage, or to obtain approval from a municipality for a land use change or building permit.

Under Part XV.1 of the EPA, an environmental site assessment is required in order to file a RSC in Ontario's Environmental Site Registry. Part XV.1 of the EPA defines two types of environmental site assessment: a phase one environmental site assessment (Phase I ESA); and, a phase two environmental site assessment (Phase II ESA). In order to file a RSC in the Environmental Site Registry, a Phase I ESA must be completed. A Phase II ESA may also be required.

In carrying out the sampling and analysis of soil, ground water or sediment as part of a Phase II ESA, or for confirmatory sampling or for a risk assessment, the proper analytical procedures must be followed and the analysis must be done by an accredited laboratory. These requirements are set out in Ontario Regulation 153/04.

4.1 Phase I ESA

A Phase I ESA is conducted "to determine the likelihood that one or more contaminants have affected all or part of the property" (refer to Definitions in Part XV.1 of the EPA). The specific requirements for carrying out a Phase I ESA are set out in Part VII of Ontario Regulation 153/04.

Under Ontario Regulation 153/04, a Phase I ESA must include a records review, a site visit, interviews, an evaluation of the information from these activities, the preparation of a written report and submission of the report to the client (property owner). A Phase I ESA does not include sampling and analysis of the property (i.e. of the soil, ground water or sediment). Sampling and analysis is part of a Phase II ESA.

For the more detailed requirements of a Phase I ESA, Ontario Regulation 153/04 adopts, with some modifications, the Phase I ESA standard published by the Canadian Standards Association (CSA). In particular, the regulation adopts Clauses 7, 8 and 9 of the CSA document "Phase I Environmental Site Assessment", designated CAN/CSA Z768-01 and dated November 2001 (as it may be amended from time to time). The CSA should be contacted to obtain a copy of CAN/CSA Z768-01. Reference should be made to the modifications in Ontario Regulation 153/04.

4.2 Phase II ESA

A Phase II ESA is conducted "to determine the location and concentration of one or more contaminants in the natural environment" (refer to "Definitions" in Part XV.1 of the EPA). The specific requirements for carrying out a Phase II ESA are set out in Part VIII

of Ontario Regulation 153/04.

A Phase II ESA is required for purposes of filing a RSC for some types of proposed changes of property use as set out in Section 27 of Ontario Regulation 153/04. Under Section 27, a Phase II ESA is required if the property is used, or has ever been used, for an industrial use or for certain commercial uses as specified in the Regulation.

A Phase II ESA is also required when the “qualified person” is of the opinion that a Phase II ESA is necessary. Typically, the qualified person would determine that a Phase II ESA is necessary as a result of a Phase I ESA indicating that there may be contaminants on the property.

Under Ontario Regulation 153/04, a Phase II ESA must include planning and conducting a site investigation, interpreting and evaluating the information from the investigation, the preparation of a written report and submission of the report to the client (property owner). A Phase II ESA must include soil sampling and analysis. Sampling and analysis of ground water and sediment, if any, is to be done if considered appropriate by the qualified person conducting the Phase II ESA.

For the more detailed requirements of a Phase II ESA, Ontario Regulation 153/04 adopts, with some modifications, the Phase II ESA standard published by the Canadian Standards Association (CSA). In particular, the regulation adopts Clauses 6, 7, 8 and 9 of the CSA document “Phase II Environmental Site Assessment”, designated CAN/CSA Z769-00 and dated March 2000 (as it may be amended from time to time). The CSA should be contacted to obtain a copy of CAN/CSA Z769-00. Reference should be made to the modifications in Ontario Regulation 153/04.

4.2.1 Technical Guidance Manual

Further assistance for conducting a Phase II ESA is provided in the Ministry of the Environment guideline entitled “Technical Guidance Manual for Phase II Environmental Site Assessments in Ontario”. The manual provides technical guidance on generally accepted practice for site characterization and sampling methods for soil, ground water and sediment in the context of conducting Phase II ESAs. It should be noted however that the manual does not take into account site specific conditions or the development of improved practices. The guidance manual therefore is not a substitute for the use of good judgement in conducting site assessments. The particular sampling and site characterization procedures to be followed and the extent and nature of a Phase II ESA depends on the specific circumstances of a property and must be determined by the qualified person responsible for the particular Phase II ESA.

4.3 Analytical Protocols and Lab Accreditation

Section 47 of Ontario Regulation 153/04 requires that the sampling and analysis of soil, ground water and sediment be carried out using proper analytical procedures and with the use of an accredited laboratory.

Analytical Protocols

Under Section 47 of Ontario Regulation 153/04, the procedures for the collection, handling and analysis of samples must be in accordance with the Ministry of the Environment document entitled “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the *Environmental Protection Act*” (Analytical Protocol) dated March 9, 2004, as it may be amended from time to time. The analytical methods and quality control protocols set out in the Analytical Protocol address matters such as sampling requirements, quality control and quality assurance, the protocol for accepting analytical results, and reporting of data.

Lab Accreditation

Section 47 of Ontario Regulation 153/04 requires the use of an accredited laboratory for the analysis of soil, ground water and sediment. The laboratory must be accredited in accordance with:

1. the International Standard ISO/IEC 17025 – General Requirement for the Competence of Testing and Calibration Laboratories, dated December 15, 1999, as amended from time to time, and
2. any laboratory standard that may have been set by the Standards Council of Canada for a parameter included in the Ministry document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*”, dated March 9, 2004.

5.0 QUALIFIED PERSONS

Part XV.1 of the EPA requires a “qualified person” to undertake certain activities related to the filing of a RSC. These activities and the filing of a RSC demonstrate that a property previously found to have contamination, or suspected of having contamination, now meets the applicable standards. A qualified person must meet the qualification requirements specified by Ontario Regulation 153/04.

A qualified person is required to:

- conduct or supervise a Phase I ESA;
- conduct or supervise a Phase II ESA;
- prepare or supervise a risk assessment; or
- make certain certifications in a RSC.

The person supervising or the person conducting the site assessment or risk assessment must be a qualified person. The requirements related to qualified persons do not apply to all people involved in site assessment or risk assessment activities provided these other persons are acting under the overall supervision of a qualified person.

Each of the above activities which requires a qualified person is unique and often involves different skill sets. Similarly, each property is unique and the qualified person skills required at one property may be different than the skills required for another property. Recognizing the different skills required for these activities, different qualified person qualifications are specified in Ontario Regulation 153/04 in relation to specified activities.

The owner of a property should also satisfy themselves that a specific qualified person is appropriate to undertake the required activities for a specific property. When retaining a qualified person, an owner will want a person to provide evidence that they have one of the required professional designations or, in the case of a risk assessment qualified person, the appropriate education and experience. An owner will also want to see proof that the person is covered by the professional liability insurance required by Ontario Regulation 153/04.

5.1 Types of Qualified Persons

Ontario Regulation 153/04 defines four different types of qualified persons, including a qualified person for each of:

1. conducting or supervising a Phase I ESA and making certifications in a RSC if only a Phase I ESA was conducted for a property.
2. conducting or supervising a Phase II ESA and making certifications in a RSC if a Phase II ESA was conducted for a property, provided all of the standards being met at the property are the standards prescribed in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" document (i.e. the standards being met at the property do not include standards specified in a risk assessment for the property accepted by the Director).
3. conducting or supervising a Phase II ESA and making certifications in a RSC if a Phase II ESA was conducted for a property, and some of the standards being met at the property are based on a risk assessment accepted by the Director that was prepared for the property (i.e. the property does not meet all of the standards set out in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*" document),
4. preparing or supervising a risk assessment for submission to the Ministry of the Environment for acceptance under Part XV.1 of the EPA.

Section 5 of Ontario Regulation 153/04 sets out the qualifications required for the first three types of qualified persons. Section 6 of the Regulation sets out the qualifications required by the fourth type of qualified person. Section 7 of the Regulation sets out the professional liability insurance requirements associated with qualified persons.

5.2 Qualified Persons for Site Assessments and Records of Site Condition

Qualified persons conducting or supervising a Phase I ESA or a Phase II ESA and making certifications in a RSC are those people with one of the Ontario professional designations specified in Section 5 of Ontario Regulation 153/04. These requirements are summarized in Table 1.

Table 1: Designation Requirements

Designation	Activity		
	Phase I ESA and Related RSC	Phase II ESA and Related RSC, <u>no</u> Risk Assessment	Phase II ESA and Related RSC, <u>with</u> Risk Assessment
Professional Engineer	X	X	X
Professional Geoscientist	X	X	X
Chartered Chemist	X	X	
Professional Agrologist	X	X	
Applied Science Technologist	X		
Certified Engineering Technologist	X		
Architectural Technologist	X		

The designations in Table 1 relate to the following qualifications in Ontario Regulation 153/04:

- **Professional Engineer** – the person has a licence or temporary licence under the *Professional Engineers Act*, but not a limited licence;
- **Professional Geoscientist** – the person has a membership in the Association of Professional Geoscientists of Ontario under the *Professional Geoscientists Act, 2000*, but not limited or non-practicing membership;
- **Chartered Chemist** – the person is registered as a chartered chemist by the Association of the Chemical Profession of Ontario under the *Association of the Chemical Profession of Ontario Act, 1984*;
- **Professional Agrologist** – the person is registered as a member of the Ontario Institute of Professional Agrologists under *The Ontario Professional Agrologists Act, 1960*;
- **Applied Science Technologist** – the person is registered as an applied science technologist under the *Ontario Association of Certified Engineering Technicians and Technologists Act, 1998*;

- **Certified Engineering Technologist** – the person is registered as a certified engineering technologist under the *Ontario Association of Certified Engineering Technicians and Technologists Act, 1998*; and
- **Architectural Technologist** – the person is registered as an architectural technologist by the Association of Architectural Technologists of Ontario under the *Association of Architectural Technologists of Ontario Act, 1996*.

It should be noted that these designation requirements are an interim approach to recognizing qualified persons. Within two years of implementing Ontario Regulation 153/04, new regulations are to be put in place to provide for the certification of qualified persons.

5.3 Qualified Persons for Preparing Risk Assessments

Qualified persons preparing or supervising risk assessments are those people with the educational and experience requirements specified in Section 6 of Ontario Regulation 153/04. Demonstration that a person has these qualifications must be submitted to the Ministry of the Environment along with the risk assessment pre-submission form (refer to Section 7.0 of this Guide).

The minimum educational requirement for a qualified person preparing or supervising a risk assessment is a 4-year degree in science, engineering or applied technology from a post-secondary institution.

Experience for a qualified person preparing or supervising a risk assessment is also required in the general field of environmental site assessment and the more specific field of risk assessment. Experience requirements for environmental site assessment vary from 5 to 8 years depending upon the level of post-graduate education achieved, as follows:

- if the person holds a doctoral degree in science or engineering, 5 years of experience is required;
- if the person holds a master's degree in science or engineering, 7 years of experience is required; or
- otherwise, 8 years of experience is required.

Within the 5, 7 or 8 year periods of required experience, at least 2 years of experience are required in the field of risk assessment.

5.4 Professional Liability Insurance Requirements

Ontario Regulation 153/04 requires that all qualified persons maintain professional liability insurance coverage unless they are undertaking work on behalf of their employer in relation to a property owned by their employer. The insurance coverage must address claims against the qualified person made in relation to any action undertaken as a qualified person during the period that the person is a qualified person and for two years thereafter. The minimum insurance coverage required is \$1 million. Professional liability

insurance provided for an individual by the company they are employed with would normally satisfy the regulatory requirement.

6.0 SITE CONDITION STANDARDS

Two approaches for cleaning up contaminated properties are provided for in Part XV.1 of the EPA and Ontario Regulation 153/04. Either of these approaches may be used when a decision has been made to file a RSC. The two approaches consist of:

1. site condition standards comprised of background standards and effects-based standards (i.e. full depth generic and stratified); or,
2. preparation of a risk assessment.

The background and effects-based standards for soil, ground water and sediment are discussed here in Section 6.0 of the Guide. Risk assessment is discussed in Section 7.0.

The background and effects-based standards are set out in the document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*” (Standards Document), dated March 9, 2004. The soil, ground water and sediment standards provided in Tables 2 to 5 of the Standards Document have been developed to provide protection against the potential for adverse effects to human health, ecological health and the natural environment in a variety of exposure scenarios associated with typical property and ground water uses. Background soil and ground water standards are provided in Table 1 of the Standards Document. Soil extract and ground water standards to determine whether a property is a “shallow soil property” are provided in Table 6 of the Standards Document.

6.1 Soil and Ground Water Standards -- Background Standards

Background soil and ground water standards are provided in Table 1 of the Standards Document and can be used to demonstrate that a property is comparable to conditions representative of the natural environment. Where background soil or ground water standards are not achievable on a property, due to naturally elevated local background concentrations or are not provided in Table 1 for a given chemical parameter that is of concern for a particular property, a property owner may undertake a risk assessment to develop a natural local background concentration standard (refer to Section 7.0 of this Guide).

6.2 Soil and Ground Water Standards -- Effects-Based Standards

The effects-based (i.e. full depth generic and stratified) site condition standards presented in Tables 2 to 5 of the Standards Document were developed to provide protection against the potential for adverse effects to human health, ecological health and the natural environment, in a variety of exposure scenarios associated with typical site and ground water uses.

6.2.1 Soil Standards

The full depth generic and stratified soil standards were established at concentrations below levels that have a potential to cause adverse effects via the following exposure pathways:

- direct contact with soil via ingestion and/or dermal contact;
- transport of volatile contaminants from soil to indoor air;
- transport of volatile contaminants from soil via ground water to indoor air; and
- transport of contaminants from ground water discharge to surface water.

6.2.2 Ground Water Standards

The site condition standards for ground water were developed to provide protection against the potential for adverse effects to human health, ecological health and the natural environment in a variety of exposure scenarios associated with typical site and ground water uses. The ground water standards have been established so that there will not be a potential for adverse effects through contaminant transfer from soil to indoor air, from ground water or surface water through release of volatile gasses, from leaching of contaminants in soil to ground water, or from ground water discharge to surface water.

6.3 Sediment Standards

The site condition standards for sediment are set out in Tables 1 to 5 of the Standards Document. The sediment standards in Tables 2 to 5 are based on a lowest effect level assessment (i.e. the level of contamination which has no effect on the majority of sediment dwelling organisms) as described in the Ministry of the Environment's "Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario" dated August 1993 (Pub # 1962). The sediment standards in Table 1 are the same standards (adverse effects-based) as developed for the Table 2 to 5 full depth generic and stratified site condition standards and are considered to provide a level of protection consistent with background and protective of sensitive ecosystems.

6.4 Selecting the Appropriate Standards for the Intended Property Use

Land use types are usually designated in an official plan or zoned as agricultural, residential, parkland, industrial or commercial. In selecting the appropriate standards to be applied to a property, however, the appropriate property use to apply is the most sensitive actual use made of any part of the property and may not correspond to the zoned land use. The soil and ground water standards have been organized to reflect the following property use classifications:

- Agricultural or Other Property Use;
- Residential / Parkland / Institutional Property Use; and
- Industrial / Commercial / Community Property Use.

The property use terms used in these classifications are defined in Ontario Regulation 153/04. If a property involves mixed uses, the most sensitive use category applies. This approach is consistent with the assumptions and the exposure scenarios considered in developing the standards.

6.5 Stratified Sites

When the vertical extent of the contamination extends more than 1.5 metres below the final grade, the owner may choose to remediate the soil to full depth or undertake a stratified remediation (or undertake a risk assessment – refer to Section 7.0 of this Guide). Where a “full depth” remediation means that soil quality is restored to a single set of site cleanup standards, a “stratified” remediation involves using two different sets of site cleanup standards at the site. For each chemical parameter of concern, one standard is used for soil at or above the 1.5 m depth, and another is used for soil below 1.5 metres. This condition is referred to as a “stratified” site condition.

For a stratified site condition, the quality of the soil at or above 1.5 metres does not exceed the “surface soil” standards in Tables 4 or 5 of the Standards Document and the quality of the soil below 1.5 metres does not exceed the “subsurface soil” standards in Tables 4 or 5 of the Standards Document. When a stratified site condition exists at a site, the subsurface soil must remain at a depth greater than 1.5 metres.

The 1.5 meter depth, which establishes the depth above and below which different soil standards apply, is measured from the final grade elevation excluding the thickness of any non-soil surface material such as asphalt, concrete or aggregate.

Three generic site components were examined when the surface soil site condition standards were developed. These components are for protection of: 1) soil ingestion/dermal contact; 2) terrestrial ecological receptors; and, 3) movement of soil vapour to indoor air. Exposure scenarios for soil ingestion/dermal contact, which estimate the effect of the chemical on human health, have been adjusted to reflect changes in frequency and intensity of exposure likely to be associated with different site uses (e.g. residential versus industrial) and soil accessibility. The terrestrial ecological component and the soil vapour-to-indoor air component were not applied to subsurface soils. If these standards are met, potential vapour movement from contaminated soil or ground water will not adversely affect air quality when living space is located above or below the 1.5 metre soil depth.

6.6 Soil Characteristics – Texture

Except for purposes of defining “shallow soil property” (refer to Subsection 6.7.2 of this Guide), Ontario Regulation 153/04 defines soil as “unconsolidated, naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve”.

Soil texture is divided into two categories: 1) coarse textured soil which contains more than 50% by mass of particles that are 75 microns or larger in mean diameter; and, 2) medium/fine textured soil which contains 50% or more by mass of particles that are smaller than 75 microns in mean diameter.

The standards for some organic and inorganic chemical parameters listed in Tables 2 to 5 of the Standards Document have different values for coarse and medium/fine textured soil. Texture influences the availability of contaminants (for uptake/intake by plants and animals) which have adhered to soil particles. Contaminants in coarse material are usually more available than in finer materials and, for this reason, soil standards for coarse textured soils tend to be lower than those for medium/fine textured soils.

The site condition standards for coarse textured soil must be used if a laboratory texture analysis has not been completed, unless the texture can be easily and clearly distinguished during field examination. A sieve analysis is usually used to accurately determine the particle size fractions and to allow selection of the appropriate soil standards based on texture. At some sites there may be significant lateral and vertical variations in soil texture.

If the soil at a property consists of both coarse textured and medium/fine textured soil, the coarse textured site condition standards must be applied if at least 1/3 of the soil at the property, measured by volume, consists of coarse textured soil. However, consideration should be given to choosing the standards for the more permeable material at a given site in situations where: 1) contaminant migration off the site could be affected by where this material is located on the site; or, 2) a site is very large in size and contains large portions of coarse textured soil which may not be protected by a medium/fine soil value.

6.7 Environmentally Sensitive Areas

Full depth generic or stratified site condition standards are not applicable to environmentally sensitive areas as set out in Section 41 of Ontario Regulation 153/04. For purposes of a record of site condition, properties in an environmentally sensitive area must meet background site condition standards (i.e. Table 1 of the Standards Document) or a risk assessment can be used to derive property-specific standards. An environmentally sensitive area is an area which meets any of the following conditions: specific soil pH value; shallow soil property; near a water body; or, area of natural significance.

6.7.1 Soil pH

A property is in an environmentally sensitive area if the soil at the property has a pH value as follows:

1. for surface soil, pH less than 5 or greater than 9, or
2. for sub-surface soil, pH less than 5 or greater than 11.

6.7.2 Shallow Soil Property

A property is an environmentally sensitive area if it is a “shallow soil property” as defined in Ontario Regulation 153/04.

A shallow soil property is a property of which 1/3 or more of the area has soil at a depth of 2 metres or less. This depth does not include any non-soil surface treatment such as asphalt, concrete or aggregate. A property is not a shallow soil property if soil extract tests pass the standards set out in Table 6 of the Standards Document or ground water concentrations beneath the soil are less than the standards in Table 6. For purposes of defining a shallow soil property, the definition of “soil” (refer to Subsection 6.6 of this Guide) includes a mixture of soil and rock if less than 50 per cent by mass of the mixture is rock.

6.7.3 Near a Water Body

A property is in an environmentally sensitive area if the property includes or is adjacent to a water body or includes land that is within 30 metres of a water body.

6.7.4 Areas of Natural Significance

A property is in an environmentally sensitive area if the property is within an “area of natural significance” as defined in Ontario Regulation 153/04. An area of natural significance includes areas such as a provincial park, a conservation reserve, a provincially significant wetland, habitat of endangered or threatened species, and certain areas designated under the *Niagara Escarpment Planning and Development Act* and the *Oak Ridges Moraine Conservation Act, 2001*.

6.8 Non-Potable Ground Water Conditions

Site condition standards are provided for either potable or non-potable ground water conditions. The site condition standards were derived to protect water quality for either potable or non-potable use and ensure the following:

- protection against exposure from vapours which may migrate to indoor air (basements) from volatile chemicals in ground water; and
- protection for aquatic receptors in surface waters which could be affected by the discharge of ground water.

In addition, the site condition standards for potable ground water ensure protection of ground water as a source of drinking water for human health.

Use of non-potable site condition standards is acceptable in some cases but the following conditions (refer to Ontario Regulation 153/04) must be met:

1. The property and all other properties within 100 metres of the property are

supplied by a municipal drinking water supply.

2. The property is not located in an area designated in a municipal official plan as a well-head protection area, or, if it is located in such a designated area, the municipality has consented in writing to the use of non-potable site condition standards.
3. The RSC does not specify “agricultural or other use” as the type of property use for which the RSC is filed.
4. The property owner has provided written notification to the clerk of the local municipality, and any upper tier municipality, of the proposal to use non-potable site condition standards and the municipality has not objected to their use.

Condition (1) above ensures that existing private water supplies will not be adversely affected by the decision to utilize site condition standards for non-potable ground water situations. Condition (2) above ensures that well-head protection areas are protected as sources of ground water supply. Condition (3) above ensures that agricultural and other more sensitive land is fully protected. Condition (4) above ensures that the municipality is aware of the proposal to use non-potable site condition standards and has an opportunity to raise any concerns with respect to the use of these standards for the property.

7.0 RISK ASSESSMENT

In some cases, it may be difficult for a property to meet the site condition standards set out in Tables 1 to 5 of the Standards Document. In these situations, the property owner could then consider developing property-specific standards through preparation and acceptance of a risk assessment.

The risk assessment approach allows for the incorporation of site specific conditions in the development of soil, ground water, and, where appropriate, sediment standards. The use of the risk assessment under Part XV.1 of the EPA and Ontario Regulation 153/04 includes: an assessment of potential risks; the setting of site specific, risk-based site condition standards; and, identification of any risk management measures that may be required.

Risk assessment is the technical, scientific examination of the nature and magnitude of risk to define potential contaminant effects in site specific situations. Risk assessment involves estimating the likelihood of an event and providing an estimate of what that event might be. Protection of both human health and the health of the natural environment must be considered in the risk assessment. The requirements as to the format and content of risk assessments are set out in Schedule C of Ontario Regulation 153/04, while best practices are provided in the Ministry of the Environment guideline entitled “Procedures for the Use of Risk Assessment under Part XV.1 of the *Environmental Protection Act*”.

7.1 Qualified Person - Risk Assessment

Under Part XV.1 of the EPA, all risk assessments must be prepared or supervised by a “qualified person” for risk assessments (QP_{RA}). The responsibilities of the QP_{RA} include the formation and overall supervision of a risk assessment team of technical and scientific professionals, as needed, to undertake the risk assessment as well as making the certified statements required in risk assessment reports. The required qualifications for a QP_{RA} are set out in Section 6 of Ontario Regulation 153/04 (refer to Section 5.0 of this Guide).

7.2 Pre-Submission Form

Completion of a pre-submission form (PSF) is done early in the process of conducting a risk assessment as part of the problem formulation. The QP_{RA} must submit a PSF to the Ministry of the Environment prior to submission of the risk assessment.

The purpose of the PSF is to provide information on site characterization and receptor characterization based on results of the Phase I ESA and Phase II ESA, and any other investigations that may have been conducted. In the case of a “wider area of abatement risk assessment”, the PSF must also include information about proposed public communications plans (refer to Schedule C of Ontario Regulation 153/04). The PSF allows the Ministry the opportunity to comment on the scope and approach of the risk assessment as well as the makeup of the risk assessment team early in the risk assessment process. The PSF will assist the property owner in deciding the best approach to take in finalizing the risk assessment.

The Ministry will prepare a letter of response that provides the review timeline required for the risk assessment approach, as well as comments concerning the scope of the risk assessment.

7.3 Property-Specific Standards

If an owner chooses to use the risk assessment approach, it is not sufficient to simply determine if the risk to human health and the environment is “significant” or not; the risk assessment must provide appropriate property-specific standards for each contaminant of concern (refer to Schedule C of Ontario Regulation 153/04).

In all cases when conducting a risk assessment, human health, ecological health and protection of the natural environment must be considered. The process used, including reference information, must be fully documented and submitted to the Ministry for review. When an owner decides to develop a property-specific standard for soil, ground water or sediment, the owner/ QP_{RA} may use the methodology used in the development of the Ministry site condition standards.

7.4 New Science Risk Assessment

A “new science risk assessment” (i.e. Section 9 of Schedule C of Ontario Regulation 153/04) may require additional time for review by the Ministry of the Environment. A new science risk assessment is a risk assessment where:

- a contaminant of concern is identified during a Phase II ESA for which there is no applicable site condition standard;
- the risk assessment uses a computer (risk assessment) model that is not publicly available or unfamiliar to the Ministry of the Environment; or,
- the risk assessment uses a probabilistic model for exposure assessments.

The period of time prescribed for the review of a new science risk assessment is 22 weeks after the date of submission.

No Applicable Site Condition Standard

The Standards Document provides soil, sediment and ground water standards for a wide range of inorganic and organic chemical parameters. There may be situations however where a contaminant of concern is identified which is not listed in Tables 1-6 of the Standards Document. In this situation, an owner may choose to develop individual property-specific standards for the chemical or to adopt standards from another jurisdiction as needed.

New Risk Assessment Models

If a QP_{RA} wishes to use risk assessment data or modelling techniques that are unfamiliar to the Ministry of the Environment, or probabilistic models for exposure assessments, their use must be fully supported by providing the model, as appropriate, and any necessary information and data for its use. Use of proprietary models, probabilistic models and/or toxicity data which the Ministry does not regularly use are discussed in the Ministry guideline entitled “Procedures for the Use of Risk Assessment under Part XV.1 of the *Environmental Protection Act*”.

7.5 Estimating Local Background Concentrations

Where full depth background site condition standards (Table 1 of the Standards Document) are not technologically achievable on a given property, due to naturally elevated local background concentrations or standards are not listed in the Table 1 of the Standards Document for a given chemical parameter that is of concern for a particular property, then a property owner may undertake a risk assessment to develop local background concentrations by carrying out a soil sampling and analysis program. These local background concentrations will be property-specific standards and must not exceed full depth generic site condition standards, with potable groundwater (Table 2 of the Standards Document). The required sampling procedures are set out in Section 8 of Schedule C of Ontario Regulation 153/04. Technical guidance on sampling is provided

in the Ministry of the Environment guideline entitled “Technical Guidance Manual for Phase II Environmental Site Assessments in Ontario”.

7.6 Limited Scope Risk Assessments

A “limited scope risk assessment” (i.e. Section 7 of Schedule C of Ontario Regulation 153/04) can be undertaken if:

- the risk assessment is not a “new science risk assessment” (i.e. Section 9 of Schedule C of Ontario Regulation 153/04);
- the risk assessment is not a or “wider area of abatement risk assessment”, (i.e. Section 10 of Schedule C of Ontario Regulation 153/04);
- no risk management measure is proposed or required to meet the target level of risk specified in “report sections” 4 and 5 of Table 1 of Schedule C of Ontario Regulation 153/04 under the heading “Risk Characterization”;
- and, if one of the following conditions is met:
 1. One or more applicable site condition standards are exceeded but only in the ground water under the risk assessed property and the source of the contaminant is or was located off the risk assessed property.
 2. The applicable full depth generic potable site condition standards are met for all environmental media, but Section 41 (i.e. environmentally sensitive areas) of Ontario Regulation 153/04 applies to the property.
 3. The risk assessment uses the same models and assumptions used by the Ministry to develop the full depth generic site condition standards and the models and assumptions are appropriate, having regard to the characteristics of the risk assessed property.

Situations may exist where, in the opinion of the qualified person assessing a property, there are significant physical and environmental conditions or receptors present that may not be protected by the full depth generic site condition standards. As these situations may be environmentally sensitive areas as identified in Subsection 41(1)(e) of Ontario Regulation 153/04, a limited scope risk assessment may be warranted.

7.7 Off-Site Contamination Issues (Wider Area of Abatement)

In some cases, a property may be identified as being located within a “wider area of abatement” (i.e. Section 10 and Table 1 of Schedule C of Ontario Regulation 153/04) based on off-site regional information or other risk assessments undertaken in the area. In such situations, there is potential for off-site sources of contamination and transport of off-site contamination which potentially involve off-site receptors and a wider scope of stakeholders.

In these situations where the property has been identified as being within a wider area of abatement, the risk assessment must include:

- consultation with the applicable Ministry of the Environment District or Regional Office regarding the implications of the risk assessment recommendations and provide a copy of any communications with the Ministry;
- development and implementation of a public communication plan, which must be documented in the risk assessment report; and
- a record of public input and how the comments were taken into account, which must be documented in the risk assessment report.

7.8 Risk Management Measures

Risk management refers to the development and implementation of a decision, strategy or technique to limit or manage the level of risk estimated by the scientific risk assessment process. Risk management may involve the use of strategies, controls or techniques to limit the movement of contaminants or limit the potential for receptors to be exposed to contaminants. A proposal for a land use change may incorporate risk management. Municipal or provincial approval or permits may be required for installation of a risk management procedure or technique (e.g. ground water pump and treat systems).

Risk management plans must identify the exposure pathways and environment media (e.g. ground water) that the risk management measures are intended to address, as well as the required reduction in exposure concentration to be achieved. The plan must propose the risk management measures that are designed to prevent, eliminate or ameliorate adverse effects to human health or the environment, both on-site and off-site. The plan must also propose any restrictions on the use of the risk assessed property, including construction of buildings.

7.9 Risk Assessment Preparation and Review Process

Risk assessment comprises the first three steps of the overall five step risk assessment preparation and review process that owners of contaminated sites must follow to assess site conditions and undertake remediation. For clarification purposes, all five steps are provided below to show how risk assessment fits into the overall risk assessment process. Further details and the forms that must be used in the risk assessment process are provided in the Ministry guideline entitled “Procedures for the Use of Risk Assessment under Part XV.1 of the *Environmental Protection Act*”.

7.9.1 Site Assessment

Prior to commencing a risk assessment, the owner retains a “qualified person” (refer to Subsection 5.2 of this Guide) to carry out a Phase I ESA and Phase II ESA. If the decision is to use the risk assessment approach to enable the filing of a RSC, the owner then proceeds to the next step. In conducting a site assessment for purposes of risk assessment, an accredited laboratory must be used and proper analytical procedures must

be followed (refer to Subsection 4.3 of this Guide).

7.9.2 Pre-Submission Form

The owner retains a qualified person for risk assessment (QP_{RA}) to develop a plan to undertake a risk assessment on the owner's behalf. The QP_{RA} organizes the necessary team of technical and scientific professionals to prepare a "pre-submission form" (PSF) and undertake the risk assessment. The PSF should provide a conceptual site model (based on site and receptor characterization) which is to be used in the planned risk assessment. The PSF must also include information about the proposed public communications plans, if applicable. The owner submits the completed PSF to the Ministry of the Environment to be reviewed for completeness and technical content. The owner will receive comments from the Ministry which will facilitate decisions pertaining to the planned risk assessment.

7.9.3 Preparation of a Risk Assessment

The property owner authorizes the QP_{RA} to undertake any additional site characterization as identified in the PSF and to consider the comments provided by the Ministry. The QP_{RA} then proceeds with the risk assessment in accordance with the conceptual model identified in the PSF. The completed risk assessment report is then forwarded to the Ministry of the Environment for review.

7.9.4 Acceptance of a Risk Assessment

The period of time prescribed by Ontario Regulation 153/04 for Ministry review begins only at the time the completed risk assessment report is received by the Ministry and is confirmed to be complete (i.e. with all risk assessment components completed).

The Ministry reviewer provides comments and recommendations to the Director who then decides whether or not the risk assessment either: a) is acceptable (with the issuance of a Certificate of Property Use (CPU), or without the issuance of a CPU); or, b) is not acceptable for reasons specified by the Director. At this point, the time prescribed for review in Ontario Regulation 153/04 stops.

The Director will provide comments within an eight week period after the date of receipt by the Director in the case of limited scope risk assessments or estimations of natural local background concentrations. In the case of a new science risk assessment, the Ministry review period is 22 weeks after the date of receipt by the Director. For all other risk assessments, the Ministry review period is 16 weeks after the date of receipt by the Director.

At any time, the Director may notify the property owner in writing of any of the following situations:

- the type of approach taken by the risk assessment report is not appropriate for the

- contaminants and the property to which the risk assessment is being applied:
- the contents of the risk assessment report do not meet Ministry requirements as specified in Sections 4 and 5 of Schedule C of Ontario Regulation 153/04; or
- the risk assessment does not contain sufficient information to support the conclusions reached in the report.

A notice may be sent to the property owner requesting that:

1. the risk assessment be revised and resubmitted to the Ministry in accordance with the directions specified in the notice; or
2. the property owner provide additional information for the risk assessment report as specified in the notice.

If the Director finds that the risk assessment is not acceptable, and the property owner chooses to revise the risk assessment, the QP_{RA} can then revise the risk assessment documents and re-submit to the Ministry starting with a new PSF. If, however, the property owner decides not to revise the risk assessment, the owner may choose to remediate the site to full depth generic, stratified or full depth background site condition standards.

The qualified person (for site assessment and filing a record of site condition) hired by the owner determines whether site remediation is required to meet the standards which apply to the site. If remediation is required, the qualified person would need to carry out confirmatory sampling and verify that the cleanup of the site has been completed. On completion, a site remediation report should be prepared as it forms, in part, the basis for filing a record of site condition in the Environmental Site Registry.

7.9.5 Certificate of Property Use

A Certificate of Property Use (CPU) can be issued, if necessary, by the Ministry for any property for which a risk assessment has been conducted. The issuance of a CPU is at the discretion of the Director and can require that certain actions be taken or can limit certain uses of the property or the constructing of specified buildings as a condition(s) of acceptance of the risk assessment. The types of actions to be taken include actions such as the installation and operation of equipment, site monitoring and reporting. The Director may alter or impose new conditions in a CPU or revoke the CPU. An order may also be issued requiring the CPU to be registered on title.

When a CPU is issued, altered or revoked, the Director is required to give notice to the municipality in which the property is located (including the chief building official, clerk of the local and, if any, upper tier municipality, and others as set out in Section 50 of Ontario Regulation 153/04). It should be noted that although most of Part XV.1 of the EPA and Ontario Regulation 153/04 come into force on October 1, 2004, a date has not yet been set for when this notice provision comes into force.

8.0 SITE REMEDIATION

If a property does not meet the applicable site condition standards, or any property-specific standards set through a risk assessment accepted by the Director, site remediation would be needed before a RSC can be filed in the Environmental Site Registry.

This section of the Guide provides a general overview of site remediation. The legislative and regulatory requirements described in this Guide do not deal specifically with how to remediate a property. The appropriate procedures and activities for the remediation of any particular property must be determined based on the specific circumstances related to that property.

Site remediation/cleanup and the development of a site cleanup plan generally involves three basic steps:

- identification and assessment of cleanup options;
- detailed design and implementation of the chosen cleanup option; and
- confirmatory sampling and verification of the completed cleanup.

Upon completion of the cleanup, a site remediation report should be prepared as it forms, in part, the basis for filing a record of site condition in the Environmental Site Registry.

8.1 Assessment of Options

A number of factors must be considered in identifying and assessing cleanup options: the media to be managed/cleaned-up (e.g. soil or ground water); the contaminant(s) of concern including the existing contaminant levels and the applicable standards to be met; and, the distribution of the contaminants within the media. Options would be assessed taking into account the effectiveness of the option/technology, practicality and cost of implementation, and long term operational requirements. In some cases, treatability studies or site specific testing of the option/technology may be needed prior to full-scale field application. The assessment of options may show that a combination of different options/technologies may be appropriate.

In general, there are three approaches for managing contaminated soil/materials:

- on-site (or in-situ) treatment;
- on-site containment/isolation; or
- removal for off-site treatment or disposal.

On-site treatment typically includes processes such as bioremediation, low temperature thermal desorption, soil vapour extraction, and ground water pump and treat systems. On-site containment/isolation includes options such as placing an asphalt barrier layer on ground surface or constructing vertical barrier walls to isolate contaminants or divert ground water flow paths. Off-site approaches typically include bioremediation and landfill disposal.

Selecting an appropriate remediation option is a site specific decision taking into account all of the above factors. To date, a frequently selected option for managing contaminated soil is off-site disposal. Contaminated soil at a property is often simply excavated and transported to an approved landfill for disposal. Any soil which is brought to the site during site cleanup to replace the removed contaminated soil must meet the applicable standards for the property as set out in the site cleanup plan.

8.2 Design and Implementation

Once a cleanup option has been selected, the detailed design and implementation procedures are developed taking into account factors similar to those described above in Subsection 8.1. In addition, consideration should have to be given to:

- the time required to initiate and complete the site cleanup;
- the need for a public information/communication;
- the development of a health and safety plan;
- the tendering process for construction and other activities;
- procedures for managing clean soil, contaminated soil and any waste materials encountered at the site;
- procedures for managing and monitoring incoming fill materials;
- on-site supervision, monitoring and documenting of the cleanup work; and,
- the need for, and requirements to obtain, any necessary regulatory approvals.

Depending on the cleanup option and circumstances, regulatory approvals such as approvals for waste management activities (Part V of the EPA), for discharges to air (Section 9 of the EPA) or discharges to surface water (OWRA) may be needed. For example, these types of approvals are generally needed, as appropriate, for any contaminant treatment or destruction option or for transporting waste off-site. The specific approval requirements for a particular cleanup project should be discussed with the local District Office of the Ministry of the Environment.

In the case where a risk assessment for the property has been accepted by the Director, a CPU may have been issued by the Director which includes requirements for certain actions to be done for purposes of site cleanup. The requirements of the CPU would also have to be complied with.

8.3 Confirmatory Sampling

Once the site has been cleaned-up, the effectiveness of the cleanup measures in meeting the applicable standards for the property must be verified. This would generally involve conducting additional (i.e. confirmatory) sampling and analysis of the affected media (e.g. the soil or ground water) and comparison with the applicable standards in a manner similar to that carried out as part of a Phase II ESA. The confirmatory sampling must show that the applicable standards needed to allow a RSC to be completed and filed in the Environmental Site Registry have been met.

8.4 Reporting of Remedial Action and Mitigation

A RSC must include information on any site remediation activities that have been undertaken at a property for purposes of allowing the filing of a RSC (refer to Subsection 9.1 of this Guide). The RSC must include remediation information such as the quantity of contaminated soil remediated and left on the property, the quantity of contaminated soil removed from the property, and the quantity of soil brought to the property for use as fill. This information should be available from the site remediation report which should have been prepared on completion of the site cleanup.

9.0 RECORDS OF SITE CONDITION

A record of site condition (RSC) is a document which summarizes the environmental condition of a property as determined by a QP by conducting a Phase I ESA, a Phase II ESA (if appropriate) and confirmatory sampling (in the case of site cleanup). Under Part XV.1 of the EPA, a RSC must be completed and filed in the Environmental Site Registry if a property owner wishes to obtain protection from potential future environmental orders for the property as specified in Part XV.1. For certain types of land use changes, such as a change from industrial use to residential use, filing a RSC on the Environmental Site Registry is mandatory (as stated earlier, however, Section 168.3.1 of Part XV.1 is not yet in force).

Part XV.1 also allows a previously completed RSC to be filed in the Environmental Site Registry through the use of a transition notice. A previously completed RSC is a RSC which has been completed in accordance with the Ministry of the Environment publication entitled "Guideline for Use at Contaminated Sites in Ontario" originally dated June 1996, and which has been "acknowledged" by the Ministry.

The type of information to be included in a RSC (and a transition notice) is described in Section 19 of Ontario Regulation 153/04 and below. The procedures for filing a RSC on the electronic Environmental Site Registry are described in Subsection 10.0 of this Guide.

9.1 Contents of a Record of Site Condition

The legislative requirements for completing and filing a RSC are set out in Part XV.1 of the EPA. Additional details are set out in Ontario Regulation 153/04.

The type of information to be contained in a RSC includes a site description, property ownership and property use, site assessment information, the standards that were applied to the site, certification statements and a description of any site remediation/cleanup activities. The information requirements are summarized below. In addition to this information, supporting documentation for the submitted RSC such as a copy of the deed for the property is also required as set out in Ontario Regulation 153/04.

Site Description, Property Ownership and Property Use

A RSC must include the following type of information on site description, property ownership and property use:

- The name and address of the property owner filing the RSC;
- The name and address of any other current owners of the property;
- The legal description, municipal address and copy of the deed for the property;
- GIS coordinates for the centroid of the property;
- The name and address of the qualified person who assessed the site; and,
- The current property use and the proposed property use.

Site Assessment Information

A RSC must include the following type of site assessment information:

- A list of the reports relied upon for the assessment/certifications;
- Indicate whether a Phase II ESA was conducted; and,
- For a RSC based on a Phase II ESA:
 - The standards which are met by the property,
 - The maximum test results for the quality of soil remaining on the property,
 - If tested, the maximum test results for the quality of ground water or sediment.

Certification Statements

A RSC must include the following types of certifications made by the property owner:

- The owner has conducted reasonable enquiries for information relevant to the RSC and has disclosed this information to the qualified person.
- The owner acknowledges the RSC is being filed in a public registry and the registry contains a notice advising the public to consider conducting their own due diligence with respect to the environmental condition of the property.
- The certification statements made by the owner are true.

A RSC must include the following types of certifications made by the qualified person who assessed the site:

- There is no evidence of any contaminants on the property that would interfere with the property use.
- If non-potable site condition standards have been used for the site, the municipality does not object to their use.
- The opinions expressed by the qualified person are engineering or scientific opinions.

- The qualified person acknowledges the RSC is being filed in a public registry and the registry contains a notice advising users of the registry to consider conducting their own due diligence with respect to the environmental condition of the property.
- The certification statements made by the qualified person are true.

Remedial Action and Mitigation

A RSC must include the following type of information on the remedial action, if any, taken at the property for purposes of filing the RSC:

- The quantity of soil that has been remediated and left on the property;
- The quantity of contaminated soil that has been removed from the property;
- The quantity of soil being brought to the property for use as fill; and,
- The type of control, treatment or monitoring works, if any, used or needed at the site for the mitigation of soil or ground water contamination.

Supporting Documentation

The supporting documentation for a RSC which must be sent to the Environmental Site Registry Office of the Ministry's Environmental Assessment and Approvals Branch includes documents such as the following:

- a copy of the deed for the property;
- if the owner is a corporation, a certified copy of the Certificate of Status; and,
- if the owner has authorized an agent to make the owner's certification statements in the RSC, proof that the agent has been authorized to do so.

9.2 Contents of a Transition Notice

The legislative requirements for completing and filing a transition notice and previously completed RSC are set out in Part XV.1 of the EPA. Additional details are set out in Ontario Regulation 153/04. A previously completed RSC is a RSC which has been completed and acknowledged in accordance with the June 1996 Ministry publication "Guideline for Use at Contaminated Sites in Ontario".

The type of information to be contained in a transition notice includes a site description, property ownership and property use, site assessment information and certification statements. The information requirements are summarized below. In addition to this information, a copy of the previously completed RSC is required along with supporting documentation for the RSC such as a copy of the deed for the property, as set out in Ontario Regulation 153/04.

Site Description, Property Ownership and Property Use

A transition notice must include the following type of information on site description, property ownership and property use for the transition notice property:

- The name and address of the property owner filing the transition notice and previously completed RSC;
- The name and address of any other current owners of the property;
- The legal description, municipal address and copy of the deed for the property;
- GIS coordinates for the centroid of the property;
- The name and address of the qualified person who reviewed the previously submitted RSC; and,
- The type of land use indicated in the previously completed RSC.

Site Assessment Information

A transition notice must include the following type of site assessment information based on the previously completed RSC:

- Indicate whether a Phase II ESA was conducted;
- The “restoration approach” (i.e. standards) used for the property; and,
- The ground water condition of the property (e.g. potable).

Certification Statements

A transition notice must include the following types of certifications made by the property owner:

- The property for which the transition notice is being filed is the same or within the property covered by the previously completed RSC.
- The qualified person made the following written certifications to the owner:
 - The qualified person has reviewed the previously completed RSC and listed environmental reports.
 - The previously completed RSC was properly completed in accordance with the Ministry’s 1996 “Guideline for Use at Contaminated Sites in Ontario”.
 - The opinions expressed by the qualified person are engineering or scientific opinions.
- The owner acknowledges the transition notice and previously completed RSC are being filed in a public registry and the registry contains a notice advising the public to consider conducting their own due diligence with respect to the environmental condition of the property.
- The certification statements made by the owner are true.

Supporting Documentation

The supporting documentation for a transition notice which must be sent to the Environmental Site Registry Office of the Ministry's Environmental Assessment and Approvals Branch includes documents such as the following:

- a copy of the previously completed RSC;
- a copy of the deed for the property;
- if the owner is a corporation, a certified copy of the Certificate of Status; and,
- if the owner has authorized an agent to make the owner's certification statements in the RSC, proof that the agent has been authorized to do so.

10.0 ENVIRONMENTAL SITE REGISTRY

The Environmental Site Registry (Registry) is required to implement Part XV.1 of the EPA. The purposes of the Registry are to allow persons (property owners) to file RSCs and facilitate public access to information contained in those RSCs. Other purposes of the Registry can be prescribed. The Registry is an internet-based, electronic registry and can be accessed for purposes of filing a RSC (or transition notice) or viewing a RSC from a link on the Ministry of the Environment website www.ene.gov.on.ca. It should be noted, however, that the Registry contains a notice indicating that users of the Registry who have dealings with any property are advised to consider conducting their own due diligence with respect to the environmental condition of the property, in addition to reviewing information in the Registry.

This Section of the Guide summarizes the procedures for filing or viewing a RSC or transition notice in the Registry, and describes the type of information which the public can access by viewing the Registry.

10.1 Filing a Record of Site Condition in the Registry

To file a RSC, a property owner must have a qualified person who meets the qualification requirements set out in Ontario Regulation 153/04 (see Section 5.0 of this Guide) undertake a site assessment, and any other necessary work, to demonstrate that the property meets the applicable standards. Once this work has been completed, the qualified person must obtain a user name and password to gain access to the Registry for purposes of inputting information about the property and filing the RSC. The RSC must be completed electronically and a signed paper copy of the completed electronic RSC, along with the necessary supporting documentation (e.g. property deed), must be provided to the Environmental Site Registry Office of the Ministry's Environmental Assessment and Approvals Branch.

The process for filing a RSC in the Registry consists of the basic steps described below in Subsections 10.1.1 to 10.1.4 of this Guide.

10.1.1 Obtaining a User Name and Password

The qualified person must obtain a user name and password to input site information and file a RSC in the Registry. The user name and password serve as a personal identifier of the qualified person and can be obtained from the Environmental Site Registry Office of the Ministry's Environmental Assessment and Approvals Branch.

To obtain a user name and password, the qualified person must complete and sign a Qualified Person Registration Form (available from the Registry website). The qualified person must indicate their name, company name (if any), business address and contact information, and their membership number and professional affiliation (with respect to the professions designated in Section 5 of Ontario Regulation 153/04). The completed registration form must be submitted, by mail or fax, to the Registry Office. This information should be updated by the QP as necessary.

Once the Registry Office is satisfied that the necessary qualified person identification and qualifications information has been provided, a unique user name and password will be provided to the qualified person. Only the qualified person who has been given the user name and password may use it and it may only be used provided the qualified person continues to meet the necessary qualifications as a qualified person.

10.1.2 Completing and Submitting a RSC

Once a user name and password has been obtained by the qualified person, the process for completing and submitting a RSC to the Registry consists of the following basic steps.

1. The qualified person accesses the Registry website. The Registry website can be accessed from a link on the Ministry of the Environment website www.ene.gov.on.ca.
2. The qualified person uses their user name and password to access the RSC filing features of the website.
3. The qualified person enters the relevant property, owner and qualified person information and site data into the electronic form of the RSC.
4. The qualified person electronically submits the completed electronic RSC to the Registry Office and then prints a paper copy of the submitted RSC. Any applicable fee may be paid on-line.
5. The qualified person signs and dates the printed copy of the submitted RSC and sends the signed RSC (originally signed or a faxed copy) to the property owner for signature.

6. The property owner signs and dates the printed copy received from the qualified person and returns the fully signed RSC (originally signed or a faxed copy) to the qualified person. The owner may also send a copy directly to the Registry Office of the Ministry's Environmental Assessment and Approvals Branch or rely on the qualified person to do this. Any applicable fee may be paid by cheque, if not paid on-line.
7. If the owner has not sent the fully signed RSC to the Registry Office under Step 6 above, the qualified person sends the fully signed RSC to the Registry Office of the Ministry's Environmental Assessment and Approvals Branch. Any applicable fee may be paid by cheque, if not paid on-line.

It should be noted that no changes of any nature may be made to the printed copy of the submitted RSC to be signed by the qualified person and the property owner.

10.1.3 Sending Supporting Documentation

The qualified person is responsible to ensure that the supporting documentation required for the submitted RSC, such as a copy of the deed for the property, is sent to the Registry Office in a timely manner. The supporting documentation can be sent to the Registry Office by mail or fax. The filing of an RSC cannot be completed until all required supporting documentation is received by the Registry Office.

It should be noted that the reports relied on by the qualified person in making the certifications in the RSC, such as a Phase I ESA report, are not to be sent to the Registry Office. These reports are listed in the RSC but are retained by the qualified person.

10.1.4 Acknowledgment that a RSC has been Filed

Upon receipt of an electronically submitted RSC, the signed paper copy of the submitted RSC, the supporting documentation required for the submitted RSC and any applicable fee, the Registry Office carries out an administrative review of the RSC submission for completeness. If complete, the Ministry allows the electronic filing of the RSC in the Registry to proceed and a written acknowledgement of the filing is sent to the property owner and qualified person. The acknowledgement will identify the date of filing.

10.2 Viewing Documents in the Registry

An important purpose of the Environmental Site Registry is to facilitate public access to information contained in RSCs, especially information about the environmental condition and cleanup, if needed, of a property. Through the Registry, the public can obtain information concerning environmental site assessments, the standards that were applied to the property and any remedial action which may have been undertaken to meet these standards. The Registry also contains information about instruments that may have been issued to the owner in relation to the RSC property such as a certificate of property use.

The public can access the Registry and information about a RSC property by using the Registry website (which can be accessed from a link on the Ministry of the Environment website www.ene.gov.on.ca). A user name and password is not required for public access and viewing information in the Registry. The Registry has search capabilities to assist the public in finding RSCs which may have been filed for a particular property or filed for other properties located within a certain area.

Records of Site Condition

RSCs are the primary instruments filed in the Registry. Each RSC contains information concerning the site description, property ownership and property use, site assessment information, the standards that were applied to the site, certification statements and a description of any remediation activities. RSCs and transition notices for previously completed RSCs are discussed further in Section 9.0 of this Guide.

Certificates of Property Use

If the Director accepts a risk assessment for a property, the Director may also issue a certificate of property use (CPU) for the property requiring certain action to be taken at the property or limiting the use of the property. The Registry will indicate if a CPU has been issued for a property and will indicate how a copy of the CPU can be viewed or obtained. In addition, the RSC for a property will identify if any constructed works to control or otherwise mitigate the release or movement of contaminants are required for the property. CPUs are discussed in Subsection 7.9.5 of this Guide. Risk management measures are discussed in Subsection 7.8 of this Guide.

Environmental Orders

The Registry will indicate if an environmental order has been issued with respect to the property. An order may have been issued because:

- The RSC contains false or misleading information. If the RSC contains false or misleading information, the protection from orders provided by the filing of the RSC on the Registry does not apply and the Ministry may issue any order it deems appropriate.
- There is an emergency related to contaminants at the property as of the certification date of a filed RSC. The Director may issue an order with respect to a RSC property if the Director believes that as a result of such a contaminant there is a danger to the health or safety of any person.
- There is a contravention of a term or condition of a CPU (or, similarly, an order issued with respect to a risk management measure described in a RSC filed in the Registry pursuant to a transition notice – refer to Subsection 9.2 of this Guide).

The Registry will also indicate how a copy of an order can be viewed or obtained.

11.0 MANDATORY FILING

Although most of Part XV.1 of the EPA and Ontario Regulation 153/04 come into force on October 1, 2004, a date has not yet been set for when the mandatory filing provisions come into force.

Under Part XV.1 of the EPA, a property owner may file a RSC on the Registry if the applicable standards are met for soil, ground water and sediment, if any. Section 168.3.1 of the EPA requires the filing of a RSC in the Registry prior to a change in property use from a commercial or industrial use to a residential or parkland use or other change in use specified by regulation. Section 168.3.1 has been included in Part XV.1 of the EPA to ensure that properties being converted to a more sensitive use meet the appropriate standards. Ontario Regulation 153/04 includes further details of the types of property use changes affected by this mandatory filing provision.

It is expected that many municipalities will continue to identify other circumstances requiring the filing of a RSC. For further information on planning and the Regional Planning Commissioner's process model for contaminated properties (refer to Section 12.0 of this Guide).

11.1 The Building Code and Property Use Categories

Before reviewing the provisions in Ontario Regulation 153/04 with respect to change in use and mandatory filing, it is important to understand how these provisions work in relation to the *Building Code Act, 1992* and to understand the definitions that have been included in Ontario Regulation 153/04.

11.1.1 Link to the Building Code

The mandatory filing provisions of Section 168.3.1 of the EPA are linked to the *Building Code Act, 1992* by requiring that a RSC be filed before construction, if the building will be used in connection with the regulated change in use. This means that a building permit cannot be issued in relation to the regulated changes in property use (e.g. from industrial use to residential use) until a RSC is filed for that property.

Subsection 11(2) of Ontario Regulation 153/04 stipulates that the term "change in use" does not include a reference to a change in the zoning of the property under a municipal by-law. A change in use therefore refers to a change in the actual use of the property.

11.1.2 Property Use Categories

The definitions for the seven property use categories can be found in Part I, Subsection 1(3) of Ontario Regulation 153/04. If a property is unused, Section 2 of the Regulation deems the property to have the type of property use to which the property was most recently put (e.g. an abandoned industrial property is still an industrial property).

The following is an overview of the seven property use categories (Table 3 in Subsection 11.3.1 of this Guide shows the relationship of these definitions to the *Building Code Act*, 1992 definitions):

Industrial

“Industrial use” includes such things as an enterprise or activity involving assembling, fabricating, manufacturing, processing, producing, storing, warehousing or distributing goods or raw materials, or research or development in association with an enterprise or activity. Other activities considered industrial include such things as the use of the land or on-site buildings for the transportation of goods or people by railway or by airplane, production of oil or gas, mining or quarrying, generation or transformation of electricity, storage, maintenance or repair of transportation systems, use as a salvage yard, or use of the land in connection with a sewage works, water treatment facility or sewage treatment facility.

Commercial

“Commercial use” includes such things as an enterprise or activity involving the exchange of goods or services, including a hotel, motel, hostel or similar accommodation, or an office building.

Community

“Community use” includes such things as indoor recreational activities, indoor gathering of people for civic, religious or social purposes or travel facilities, such as a railway station or airport passenger terminal. Note that community use also includes post secondary classrooms.

Residential

“Residential use” include such things as a home or mobile home, health care facility, detention or correctional institution, penitentiary, or use associated with the residence of post secondary education (i.e. student housing). Residential use does not include motels or hotels, which establishments are considered to be commercial use.

Institutional

“Institutional use” includes such things as day-care centres or schools (public or private).

Parkland

“Parkland use” includes such things as outdoor recreational activities, a day camp, an overnight camp, an overnight camping facility, or an outdoor gathering of people for civic or social purposes.

Agricultural or Other

“Agricultural or other use” includes such things as animal husbandry, aquaculture, beekeeping, dairying, field crops, forestry, fruit farming, horticulture, market gardening, poultry raising or the operation of glass- or plastic-covered greenhouses.

The “agricultural or other use” category also includes any other use that does not fall into any of the other RSC property use categories.

11.2 Mandatory Filing Requirements

Section 168.3.1 of the EPA and Ontario Regulation 153/04 require that a RSC must be filed before a change in use is allowed when there is a change (in all or in part of the property) from an industrial, commercial or community property use to residential, institutional, parkland or agricultural or other property use (as stated earlier, however, Section 168.3.1 of Part XV.1 is not yet in force). These requirements are summarized in Table 2.

Table 2: Mandatory Filing Requirements

Change in use from all or part of the following:	To any of the following (more sensitive) uses:
Industrial or Commercial or Community	Agricultural or Other Use Institutional Use Parkland Use Residential Use

Exemptions

Ontario Regulation 153/04 provides exemptions from the mandatory requirement to file a RSC in the following situations:

- A change of use from a railway line to a trail used for recreational activities -- allowing for the common practice of converting unused rail lines to recreational trails.
- A change in use from a land fill site approved under Part V of the EPA to another use.
- A change in use involving excavation and shoring -- an exemption is provided for excavation and shoring in relation to development recognizing that site remediation often takes place in concert with excavation and a record of site condition could not be filed until after such excavation has taken place.
- A change in use from mixed industrial, commercial or community use which includes institutional or residential use to a more sensitive use.

11.3 What Building Officials Need to Know

As discussed in Subsection 11.1 of this Guide, Section 168.3.1 of the EPA is linked to the *Building Code Act, 1992*. This means that a building official must ask for proof that a RSC has been filed in the Environmental Site Registry before issuing a building permit for certain property use changes. The information provided below is intended to assist municipal building officials in carrying out their responsibilities.

11.3.1 When Proof of a RSC is Required

Table 3 provides an overview of when a RSC is required, based on the link between the Building Code occupancy classifications and the RSC property use categories. All seven RSC property use categories are defined in Subsection 1(3) of Ontario Regulation 153/04 (refer to Subsection 11.2 of this Guide). It should be noted that, as Table 3 may only include (under “Link to RSC Definition”) reference to the part of the RSC definition that is linked with the Building Code definitions in Table 3 (under “Building Code Occupancy Permits”), building officials should refer to Ontario Regulation 153/04 for the complete RSC definitions.

Building officials should take note that there are exemptions from the mandatory RSC filing requirements (refer to Subsection 11.2 of this Guide). Of particular interest to building officials is the exemption for excavation and shoring. This exemption recognizes that site remediation often takes place in concert with building excavation and a RSC could not be filed until after an excavation has taken place.

Table 3: Link with the Building Code

Building Code Occupancy Permits	Link to RSC Definition	When Proof of a RSC is Required
<ul style="list-style-type: none"> - Group F, Division 1, high hazard industrial occupancies - Group F, Division 2, medium hazard industrial occupancies - Group F, Division 3, low hazard industrial occupancies 	Industrial Use	Change in industrial use (all or part) to any of the following uses: <ul style="list-style-type: none"> - Residential - Institutional - Parkland - Agriculture
<ul style="list-style-type: none"> - Group D, business and personal services occupancies - Group E, mercantile occupancies 	Commercial Use	Change in commercial use (all or part) to any of the following uses: <ul style="list-style-type: none"> - Residential - Institutional - Parkland - Agriculture

Building Code Occupancy Permits	Link to RSC Definition	When Proof of a RSC is Required
<ul style="list-style-type: none"> - Group A, Division 1, assembly occupancies intended for the production and viewing of the performing arts - Group A, Division 3, assembly occupancies of the arena type 	Community Use	Change in community use (all or part) to any of the following uses: <ul style="list-style-type: none"> - Residential - Institutional - Parkland - Agriculture
<ul style="list-style-type: none"> - Group A, Division 2 (educational) 	<u>Institutional Use</u> Institutional use includes such things as day-care centres or schools (public or private).	Change in industrial, commercial or community use (all or part) to institutional use.
<ul style="list-style-type: none"> - Group A, Division 2 (consumption of food or drink) 	Commercial Use	Change in commercial use (all or part) to any of the following uses: <ul style="list-style-type: none"> - Residential - Institutional - Parkland - Agriculture
<ul style="list-style-type: none"> - Group B, Division 1, detention occupancies - Group B, Division 2, care and treatment occupancies - Group B, Division 3, care occupancies - Group C, residential 	Residential Use	Change in industrial, commercial or community use (all or part) to residential use.
<ul style="list-style-type: none"> - Group A, Division 4, assembly occupancies in which occupants are gathered in the open air 	Parkland Use	Change in industrial, commercial or community use (all or part) to parkland use.
	<u>Agricultural or other</u> Agricultural use includes such things as animal husbandry, aquaculture, beekeeping, dairying, field crops, forestry, fruit farming, horticulture, market gardening, poultry raising or the operation of glass- or plastic-covered greenhouses.	Change in industrial, commercial or community use (all or part) to agricultural or other use.

If the use of land or a building on the property does not fall into any of the other RSC property use categories, it would be considered “agricultural or other”.

The differences between the Building Code definitions and the RSC definitions should be noted as follows:

- Assembly occupancy for education (Group A) is included in the RSC definition of institutional use.
- Assembly occupancy for the consumption of food or drink (Group A) is included in the RSC definition of commercial use.
- Residential occupancy when sleeping accommodation is provided, such as hotels, (Group C) is included in the RSC definition of commercial use.

11.3.2 Acknowledgement that a RSC has been Filed

Once the property owner has filed the RSC in the Registry, the Ministry of the Environment sends out an acknowledgement letter to the owner. The building official should ask the building permit applicant for a copy of the acknowledgement letter as proof that the RSC has been filed in the Registry. To verify if the RSC has been filed, the building official can search the Environmental Site Registry by using the Registry website. The Registry website can be accessed from a link on the Ministry of the Environment website www.ene.gov.on.ca.

11.3.3 Restrictions on the Property – Certificate of Property Use

The owner of the RSC property may choose to conduct a risk assessment for their property. The risk assessment must be accepted by the Director before it can be used in a RSC which is to be filed in the Registry. In accepting the risk assessment, the Director may include conditions on the use of the property, such as not allowing basements in buildings on the property. These restrictions are contained in a document called the Certificate of Property Use (CPU). The building official should ask the building permit applicant for a copy of this document.

At the same time the Ministry issues the CPU to the applicant, the Ministry will also send the municipal clerk (for the local and upper tier, if any) and the Chief Building Official a copy of the CPU.

12.0 PLANNING AND ENVIRONMENTAL REQUIREMENTS

The information in this section is supplemental to the legislative and regulatory requirements described in this Guide. The information in this section is intended only as a general guide and does not in any way modify or affect any of the provisions or statutory responsibilities under the *Planning Act*.

12.1 Land Use Planning in Ontario

Land use planning in Ontario is governed by the *Planning Act*, which is within the jurisdiction of the Ministry of Municipal Affairs and Housing. Decision-making and approval powers under the *Planning Act* can involve the Minister of Municipal Affairs and Housing, council of a municipality, a local board, a planning board and the Ontario Municipal Board where there is an appeal of a decision of an approval authority.

Mechanisms for Land Use Control

A proposal for the development of a contaminated or potentially contaminated property may trigger *Planning Act* mechanisms such as official plans and amendments, zoning and zoning amendment by-laws, subdivision control, community improvement planning, site planning, minor variances, holding by-laws, interim control by-laws or temporary use by-laws. The appropriate local planning approval authority may be contacted for planning assistance. At the provincial level, there are five regional planning offices of the Ministry of Municipal Affairs and Housing, Municipal Services Offices which can provide assistance and advice (see Appendix A1 at the end of this Guide for contact information).

When planning for the development of contaminated or potentially contaminated property, consideration must be given to all relevant legislation and regulations including, but not limited to: the *Planning Act*; the Provincial Policy Statement; the *Building Code Act*; the *Environmental Protection Act*; and, local policies including, but are not limited to, official plans, zoning requirements and community improvement plans.

The Planning Review and Approval Process

The choice of planning mechanism and timing within the development control review process is affected by a number of variables including the nature of the proposal (e.g. proposed use), municipal planning requirements at the time of an application (e.g. official plan policies and zoning), the state of the property (contaminated or potentially contaminated), documents required (e.g. environmental study/assessment requirements), verification of the state of the property requirements (e.g. RSC) and the goals of a property owner and the municipality (e.g. timing and public consultation requirements). Early discussions with the appropriate planning approval authority (lower tier, single tier, upper tier or provincial) can help proponents in establishing their planning and environmental requirements and can facilitate a smoother planning and development process.

12.2 Integrating Planning and Environmental Requirements

Where the subject property is contaminated or potentially contaminated, the planning approval authority may request that a property owner confirm the environmental condition of the subject property and whether it is suitable for the proposed use. For efficiency purposes, planning and environmental requirements can be integrated. In particular, while official plan policies may indicate that environmental studies,

assessments and a RSC need to be submitted to a municipality, for some requirements, such as the RSC, the timing for completion of the work can be established during the planning review process rather than prior to submission of a planning application.

For example, as a condition of approval for subdividing land, the *Planning Act* provides that a planning approval authority may impose “such conditions to the approval...as in the opinion of the approval authority are reasonable”. In this situation, and where a property requires remediation, a condition of approval may include the need to provide the approval authority with a copy of a filed RSC as one of the conditions to be fulfilled before a final decision is made.

Municipalities should review the provisions of each planning mechanism under the *Planning Act*, to determine if and how a RSC requirement can be imposed during a development review and approval process.

Phase I Environmental Site Assessment

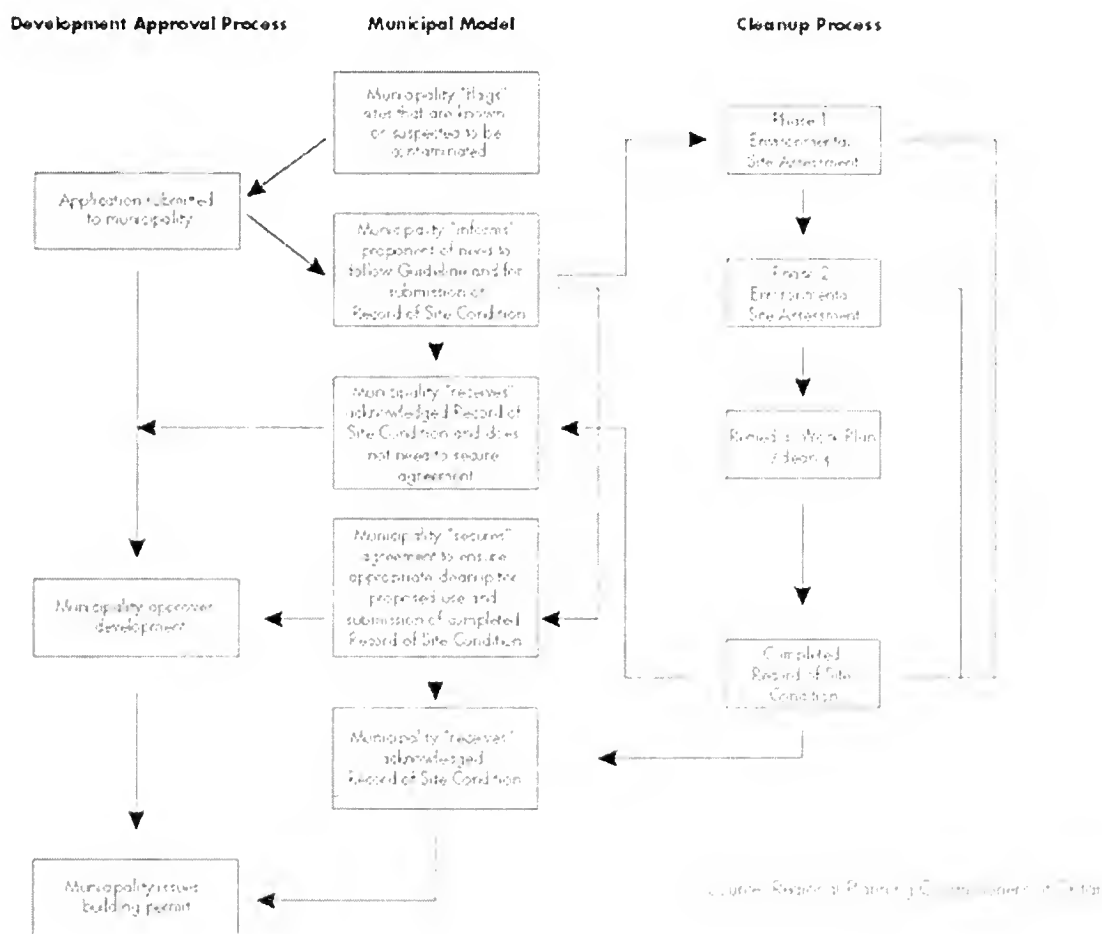
Where a Phase I ESA may be required, municipalities may consider whether its completion should be requested prior to the submission of a planning application. A general requirement for a report on the initial site assessment can be set out in official plan policies for properties that are potentially contaminated. If further investigation is not required, the property owner should then submit all supporting documentation with the planning application.

Phase II Environmental Site Assessment

If a Phase I ESA indicates that a Phase II ESA is necessary, municipalities may request completion of the Phase II ESA prior to the submission of a planning application. A general requirement for a report on this Phase II ESA assessment phase can be set out in official plan policies for properties that are potentially contaminated. If the results of the Phase II ESA indicate that a remedial work plan is not required, the planning application and supporting documentation (e.g. report) with regard to site conditions may then be submitted with the planning application.

12.3 A Planning Process Model for Contaminated Properties

One way to integrate the site assessment and restoration process with the land use planning process is shown in Figure 2. This model was developed by the Regional Planning Commissions of Ontario to be applied to contaminated properties. The four-step process outlined in Figure 2 is not intended to be the only method of integrating these processes, nor is it a prescribed method. It is intended as an **example** of how municipalities might integrate the various land and environmentally-related process components when dealing with contaminated or potentially contaminated properties.

Figure 2: Standard Process

The standard process set out in this model involves a four-step approach:

- pre-identify site
- inform proponent
- secure conditions
- review record of site condition (RSC)

This process model was developed by the Regional Planning Commissioners of Ontario (RPCO) in 2000 and incorporated into a Brownfields Showcase Info Sheet, titled, "Series No. 2: A Process Model for Contaminated Sites" prepared by the Ministry of Municipal Affairs and Housing.

13.0 LIMITATIONS ON ENVIRONMENTAL LIABILITY

The legislative and regulatory amendments made through the *Brownfields Statute Law Amendment Act, 2001* included provisions concerning protection from environmental liability. Provisions in Part XV.1 of the EPA apply predominantly to property owners who have filed a RSC. Provisions in Part XV.2 of the EPA apply to municipalities, secured creditors and others who may need to undertake certain investigative or other actions related to brownfield sites. Similar provisions to those in the EPA have been included in the OWRA. The *Pesticides Act* contains similar provisions for the protection of municipalities, secured creditors and others.

It should be noted that the description of the legislative protection given in this section is for convenience only. A copy of the relevant legislation and regulations should be obtained to determine the exact requirements.

13.1 Effect on Owner Liability from Filing a RSC

If a RSC is filed in the Environmental Site Registry, Part XV.1 of the EPA provides that certain types of orders cannot be made against the owner of the property and certain other persons, subject to specified exceptions. Similar provisions have been included in the OWRA.

13.1.1 General Protection from Possible Orders

The filing of a RSC in the Registry shows that a qualified person has assessed the property and shown that it meets the applicable soil, ground water and sediment standards for the proposed property use. If a RSC is filed in the Registry, certain types of orders that would otherwise relate to historic contamination at a property, as specified in the EPA and OWRA, generally cannot be issued against the following persons:

- the person who filed the RSC or a subsequent owner of the property,
- an occupant of the property at the time of or after filing,
- a person who has charge, management or control of the property at the time of or after filing,
- the person who owned the property at the time a RSC was submitted to the Ministry under the June 1996 Ministry publication "Guideline for Use at Contaminated Sites in Ontario", if the RSC has been filed to the Registry, or
- the person sold the property to a purchaser and part of the agreement for the purchase and sale of the property included a condition, covenant or term that the purchaser would file a RSC for the property, and has subsequently done so.

This protection is provided to encourage the cleanup and redevelopment of contaminated sites by removing the uncertainty associated with ongoing regulatory liability which has been seen as a disincentive to redeveloping contaminated sites in the past.

13.1.2 Limitations on the Protection from Orders

The RSC reports that a property meets the applicable standards as of a point in time (the certification date). Orders may be issued in relation to any new contamination at the property that occurs after the certification date. Orders may also be issued in other situations as described in the legislation.

False or Misleading Information

The protection from possible orders does not apply if the RSC contains false or misleading information.

Off-Site Contamination

If contamination from the property has moved off-site after the certification date, the protections from possible orders does not apply.

More Sensitive Property Use

If, subsequent to the filing of a RSC in the Registry, the property is used for a more sensitive use than the intended use of the property as disclosed in the RSC (the use for which the RSC was filed and for which the standards were met) then an order may be issued against the person who causes or permits the more sensitive use.

Contravention of Certificate of Property Use or Soil Management Regulations

An order may be issued against a person who contravenes a term or condition of a CPU or of an order respecting risk management measures. An order may also be issued against a person contravening a provision of a soil management or disposal regulation.

13.1.3 Emergencies Relating to Old Contaminants

The protection from orders also does not prevent the Director from issuing an order to the current owner of the property for which a RSC has been filed in an emergency circumstance. An emergency circumstance occurs if the Director has reasonable grounds to believe that contaminants at the property as of the certification date of the RSC (i.e. relating to old contaminants) pose a danger to the health or safety of any person. Such an order can only include directions necessary to address the emergency circumstance, but may include, amongst other things, requiring the property owner to control or stop the discharge of contaminants, to monitor the discharge of contaminants, to remove the contaminants or to secure the property by fencing or other means. If the presence or discharge of the contaminant has or is likely to damage or endanger existing water supplies, the order can also require the provision of alternate water supplies.

If an order is issued under these emergency provisions, the Director shall file notice of the order in the Registry. Once the Director is satisfied that the order has been complied

with, the Director shall file notice of compliance with the order in the Registry. Also, if the Director is satisfied that the order has been complied with but believes that a certification in the RSC filed in the Registry does not accurately reflect the condition of the site, the notice of compliance cannot be filed until a new RSC has been filed in the Registry.

13.2 Special Provisions

Part XV.2 of the EPA includes provisions for municipalities, secured creditors, receivers, trustees in bankruptcy, fiduciaries and property investigators who may need to undertake certain investigative or other actions related to brownfield sites, or take ownership or control of a brownfield site. These provisions provide certain protections to these parties from being responsible for historic contamination at a site. Providing these protections to these parties is intended to ensure that there is no liability barrier to taking actions in the public interest at a potentially contaminated site, and to facilitate community improvement planning and the cleanup and redevelopment of brownfield sites. Similar provisions to the protection from orders provided in the EPA have also been included in the OWRA and the *Pesticides Act*.

Ontario Regulation 298/02 made under the EPA, and Ontario Regulation 299/02 made under the OWRA, provide some additional details on the special provisions.

Also included in these legislative and regulatory provisions are notice requirements. Municipalities, secured creditors, receivers, trustees in bankruptcy and fiduciaries, or their representatives, who become aware of a danger to the health or safety of any person must inform Ministry of the Environment's Spills Action Centre (Toll Free: 1-800-268-6060) within 24 hours.

13.2.1 Municipalities

Protection When Taking Certain Actions

The legislative and regulatory provisions provide that if a municipality takes certain actions relating to non-municipal properties (e.g. an abandoned industrial site) the municipality or municipal representative will not, for that reason alone, be considered responsible for the property for purposes of the possible issuance of certain orders concerning its environmental condition. The protected municipal actions include actions such as:

- conducting an investigation of the property;
- ensuring the supply of services;
- securing the property;
- ensuring the property is insured;
- responding to an exceptional circumstance;
- collecting rents or levies;
- the suppression or prevention of fire;

- the removal, repair or renewal of any building or structure;
- causing work to be done in relation to a public utility or because of a person's failure to comply with a law, approval, order or agreement; and
- or any action under the *Building Code Act, 1992*, the *Fire Protection and Prevention Act, 1997*, Part XI of the *Municipal Act, 2001*, the *Drainage Act*, the *Health Protection and Promotion Act*, the *Snow Roads and Fences Act*, and the *Weed Control Act*.

Protection When Becoming an Owner as a Result of a Failed Tax Sale

The legislative provisions also provide protection to a municipality or municipal representative from all environmental orders when the municipality becomes the owner of a non-municipal property as a result of a failed tax sale of the property. This protection is in respect of a period of up to five years or the day the property is sold, and may be extended. The protection, however, does not apply in a situation where there is gross negligence or willful misconduct by the municipality or municipal representative. The protection also does not apply if the municipality contravenes certain waste management-related provisions in the Act.

Exceptional Circumstances

Under “exceptional circumstances”, the protection provided to a municipality or municipal representative in the case of a failed tax sale of the property may not apply. The Ministry of the Environment could issue an order if there are reasonable grounds to believe that as a result of the contaminants at a property there may be:

- danger to the health or safety of any person;
- impairment or serious risk of impairment of the quality of the natural environment; or
- injury or damage or serious risk of injury or damage to any property or any plant or animal life.

An exceptional circumstance order can only be issued to the extent necessary to alleviate the exceptional circumstance. If a record of site condition has been filed in the Environmental Site Registry for the failed tax sale property, the protections afforded to a property owner would also apply to the municipality.

13.2.2 Secured Creditors

Protection When Taking Certain Actions

The legislative and regulatory provisions provide that if a secured creditor takes certain actions relating to a property, the secured creditor will not, for that reason alone, be considered responsible for the property for purposes of the possible issuance of certain orders concerning its environmental condition. The protected actions by the secured creditor include actions such as:

- conducting an investigation of the property;
- ensuring the supply of services;
- securing the property;
- ensuring the property is insured;
- paying taxes due or collecting rents due; and
- responding to an exceptional circumstance.

Protection When Becoming an Owner as a Result of a Foreclosure

The legislative provisions also provide protection to a secured creditor from all environmental orders when the creditor becomes the owner of a property as a result of a foreclosure of the property. This protection is in respect of a period of up to five years or the day the property is sold, and may be extended. The protection, however, does not apply in a situation where there is gross negligence or willful misconduct of the creditor. The protection also does not apply to a contravention of the Act, regulation, an approval, a certificate of property use, a license or a permit if the contravention occurred more than 90 days after the secured creditor took ownership.

Exceptional Circumstances

The “exceptional circumstances” limitation on the protections provided to a secured creditor who has become an owner as a result of a foreclosure is essentially the same as that described above for a municipality (when the municipality becomes the owner of a non-municipal property as a result of a failed tax sale).

13.2.3 Receivers and Trustees in Bankruptcy

Protection When Becoming a Receiver or Trustee in Bankruptcy

The legislative provisions provide protection to a receiver or trustee in bankruptcy from all environmental orders. There is no specified limit on the time period of this protection. The protection, however, does not apply in a situation where there is gross negligence or willful misconduct of the receiver or trustee. The protection also does not apply to a contravention of the Act, regulation, an approval, a certificate of property use, a license or a permit if the contravention occurred more than 90 days after the receiver or trustee and bankruptcy took procession or control and the contravention does not relate to certain listed matters.

Exceptional Circumstances

The “exceptional circumstances” limitation on the protections provided to a receiver or trustee in bankruptcy is essentially the same as that described above for a municipality (when the municipality becomes the owner of a non-municipal property as a result of a failed tax sale) and a secured creditor (who has become an owner as a result of a foreclosure).

13.2.4 Fiduciaries

The legislative provisions affecting fiduciaries (e.g. an executor of an estate) do not prevent the issuance of an order to the fiduciary concerning the environmental condition of a fiduciary property, but the provisions do limit the costs to the fiduciary in complying with the order to the net value of the assets being administered.

13.2.5 Property Investigators

The legislative provisions provide that any person who conducts an investigation of a property will not, for that reason alone, be considered responsible for the property for purposes of the possible issuance of certain orders concerning its environmental condition.

Appendix A1

FURTHER INFORMATION

1. “Technical Guidance Manual for Phase II Environmental Site Assessments in Ontario”, Ontario Ministry of the Environment.
2. “Procedures for the Use of Risk Assessment under Part XV.1 of the *Environmental Protection Act*”, Ontario Ministry of the Environment.
3. For further planning information contact:

Ministry of Municipal Affairs and Housing
website: www.mah.gov.on.ca

Municipal Services Offices:

Central (Toronto)

(416) 585-6226 or 1-800-668-0230

Southwest (London)

(519) 873-4020 or 1-800-265-4736

East (Kingston)

(613) 548-4304 or 1-800-267-9438

Northeast (Sudbury)

(705) 546-0120 or 1-800-461-1193

Northwest (Thunder Bay)

(807) 475-1651 or 1-800-465-5027

Appendix A2

DEFINITIONS

When used in this Guide, the following acronyms, words or phrases have the following meanings:

“**Analytical Protocol**” means the Ministry of the Environment document entitled “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the *Environmental Protection Act*” dated March 9, 2004.

“**CPU**” means a “certificate of property use”.

“**EPA**” means the “*Environmental Protection Act*”.

“**OWRA**” means the “*Ontario Water Resources Act*”.

“**Phase I ESA**” means a “phase one environmental site assessment”.

“**Phase II ESA**” means a “phase two environmental site assessment”.

“**PSF**” means a “pre-submission form” as used for risk assessments.

“**QP**” means a “qualified person” for site assessments and records of site condition.

“**QP_{RA}**” means a “qualified person for risk assessments”.

“**Registry**” means the “Environmental Site Registry”. The **Registry website** can be accessed from a link on the Ministry of the Environment website www.ene.gov.on.ca.

“**RSC**” means a “record of site condition”.

“**Standards Document**” means the document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*” dated March 9, 2004.

Appendix A3

SAMPLE DOCUMENTS

This appendix contains the following sample documents:

A3.1 Record of Site Condition

A3.2 Transition Notice

